

**2009 National Coastal Wetlands Conservation Grant Program
Grant Proposal for Brookings Bay North Point (Berry)/ Kennebec Estuary**

A. Application for Federal Assistance: Attached SF424

B. Statement of Assurance: Attached

C. Project Statement

1. The need with the purposes of the Act.

The Kennebec Estuary has long been recognized for its exceptional biological productivity. The region's upland forests and extensive coastal and tidal freshwater wetlands provide critical habitat for a great diversity of wildlife and plant species, including five state endangered and threatened species. At approximately 1,710 square miles, the Kennebec Estuary offers the opportunity to focus conservation efforts on both extraordinarily high value habitat and the overall health of a largely intact estuarine ecosystem.

The Kennebec Estuary itself is comprised of Merrymeeting Bay and the lower fifteen miles of the Kennebec River. It consists of high value salt marshes, tidal freshwater marshes, riparian habitat and associated upland buffers. Twenty percent of Maine's tidal marshes are found within the estuary, representing the largest concentration of salt and freshwater tidal marshes in the state. Six rivers converge to form Merrymeeting Bay, draining nearly 40% of Maine and creating nutrient rich waters, expanses of wild rice, and more than 25,000 acres of prime habitat for migratory waterfowl. The estuary provides the most important waterfowl concentration area in New England and is one of the premier waterfowl staging grounds on the Atlantic Flyway. The Kennebec Estuary contains over 500 miles of coastline, salt marsh, and river frontage.

In 1992, the Maine Wetlands Protection Coalition was established as an innovative partnership to protect high value habitat in the Kennebec Estuary. This effort has gained national recognition as a successful model that brings the Maine Department of Inland Fisheries and Wildlife (MDIFW), US Fish and Wildlife Service (USFWS) and many non-governmental organizations together as a coordinated approach to prioritize and protect land of significant value in the Kennebec Estuary. As a result, more than 15, 000 acres of coastal wetlands and uplands have been protected to date in the Kennebec Estuary Focus Area.

This proposal is submitted to support the acquisition of the Brookings Bay North Point (Berry) tract located in the town of Woolwich on Brookings Bay within the lower portion of Kennebec Estuary (see Figure 1). The application requests financial assistance of \$288,612 from the National Coastal Wetlands Conservation Grant Program to fund purchase of this 59.5 acre Berry parcel. Completion of this acquisition project will result in the Maine Wetlands Protection Coalition reaching its goal to complete this phase to acquire twelve high priority properties in the Kennebec Estuary Focus Area using a combination of federal, state and private dollars. The acquisition of the Brookings Bay North Point (Berry) tract will complete 100% of this phase.

Natural resource values-

The conservation of coastal habitat in the Kennebec Estuary is of special interest to Maine because of its great environmental, historical, economic and recreational importance. Sampling undertaken by the Maine Department of Marine Resources since 1979 has identified over 60

species of fish that use the estuary for some part of their life cycle. Included among them are anadromous and catadromous species, representative of the state's biological diversity which historically had large runs in the Kennebec Estuary. Environmental conditions in the estuary, particularly in the bay areas, facilitate growth of expansive Submerged Aquatic Vegetation (SAV) beds that provide escape, nesting, and nursery cover for a variety of fish species, food for invertebrates, and wildlife. These beds represent an important component of the detritally-based food web.

The Kennebec Estuary has long been recognized for its value as important wetland-associated bird habitat. The extensive tidal marsh communities that traditionally have made Merrymeeting Bay and the Lower Kennebec a focal point for waterfowl hunters provides regionally important habitat for ducks, geese, and wading birds. The north side of the Brookings Bay area supports about 65 acres of high quality brackish tidal marsh. This area has historically provided nesting territories for bald eagles and there are potential nest sites within the protected areas around the bay. The North Point uplands in Brookings Bay are dominated by white pine and red oak with a mixture of other tree species. The upland was partially harvested for timber approximately 20 years ago, resulting in some relatively young forest stands providing a diversity of age classes and vertical diversity.

The entire region of Brookings Bay, Hockomock Bay, and Back River is an integral part in the Merrymeeting Bay and Lower Kennebec focus area and has been identified as a priority for permanent protection by the State of Maine's Landowner Incentive Program and a featured place by Landscape America. A collaborative project of NatureServe and the National Geographic Society, Landscape America is a new online resource for the land-protection community and the public. By bringing together maps, data, photos, and stories about America's natural places and open spaces, its goal is to inform and inspire conservation of our lands and waters. The Kennebec Estuary is featured on the homepage as a "Place Worth Saving" (Ref. 1).

Current threat-

The Kennebec Estuary is located in mid-coast Maine and contains 10 townships that have experienced a growth rate four times that of the state average. Woolwich and the nine other towns reside under the Sagadahoc County jurisdiction. The rate of growth for Sagadahoc County has been faster than the overall State as a whole. The overall the number of housing units increased by 89% between 1970 and 2000. The population increased 23% between 1970 and 1980 and then another, 16% from 1980 to 1990. The 2000 population is 5% higher than in 1990. Although Maine is expected to grow more slowly than the United States as a whole, 97% of the growth is anticipated to occur in the coastal region with 63.9% occurring in the southern portion, which includes Sagadahoc County. These trends are expected to continue in the coming decades. (Ref. 2)

The US Forest Service report, "Forests on the Edge: Housing Development on America's Private Forests 2005" also highlights the Kennebec Estuary as under significant threat from development. The Lower Kennebec Watershed is listed one of the nation's top 15 forested watersheds most likely to have its private forest lands converted by housing – a projected 210,005 acres by 2030. The report indicates that such a change "could have tremendous impacts on many ecological values" (Ref. 3)

The Brookings Bay North Point (Berry) property, if not protected, could provide (and is zoned to allow) residential development; the site has sufficient size to meet and exceed the minimum size requirements for a multiple-lot development. The town of Woolwich has a steady pace of construction of new homes with population increases and of season homes to support a summer population. A six lot subdivision, two properties away, went on the market within the last year. Despite the slow housing market nationally, in coastal Maine there continues to be demand for residential lots, particularly ones that have the same amenities of the Berry property – waterfront property, a good location, access to the Atlantic Ocean, close to population centers and coastal beaches.

As residential development continues in this area, associated shoreline development will reduce upland buffers needed for wildlife, will fragment wildlife habitat, degrade water quality, and serve as a pathway for invasive species such as purple loosestrife.

2. Discrete, quantifiable, and verifiable objective(s) to be accomplished during a specific time period.

The primary objective of this proposal is to permanently protect the 59.5 acres by fee simple purchase. This proposal supports the acquisition of Brookings Bay North Point (Berry) by Maine Department of Inland Fisheries and Wildlife (MDIFW) who is working with the Kennebec Estuary Land Trust and The Nature Conservancy in negotiating a purchase and sale agreement in accordance with federal standards. MDIFW anticipates it will be signed in July and is expected to close as soon as funds are available. MDIFW may ask the Kennebec Estuary Land Trust to acquire the tract and hold it for transfer to MDIFW as fee in holding. In total 59.5 acres will be protected through this grant award. This project provides permanent protection of:

- 14.0 acres of decreasing wetland types;
- 22.0 acres of stable wetlands;
- 23.5 acres of upland habitat;
- 1962 feet of frontage on Brookings Bay; and
- 956 feet of stream.

3. Expected results or benefits, in terms of coastal lands and waters, the hydrology, water quality, or fish and wildlife dependent on the wetlands.

By permanently protecting 59.5 acres within Brookings Bay through fee acquisition, and by preventing incompatible residential and commercial development on the subject acreage, the following benefits will be realized:

1. Habitat loss, habitat fragmentation, and disturbance to fish and wildlife will be prevented. Consequently, high value habitat for waterfowl, wading birds, shorebirds, birds of prey, breeding upland birds, furbearers, diadromous fish and other species associated with the parcels, will be permanently protected.
2. The contribution of these parcels to the productivity of the estuary will be maintained.

- Continued productivity will support the estuary's function as vital habitat for rare and endangered species and vital habitat for fish and wetland-dependent wildlife
3. Sedimentation and run-off contamination will be prevented and existing water quality for fish and wildlife will be safeguarded.
 4. Public access for traditional uses compatible with habitat protection goals will be permanently secured.

4. The approach to be used in meeting the objectives, including specific procedures, schedules, key personnel, and cooperators.

Projects conducted by the Maine Wetland Protection Coalition always encompass several entities and this project is not an exception. The entities collaborating determined that the Maine Department of Inland Fisheries and Wildlife will own and manage the Brookings Bay North Point (Berry) tract. An appraisal has been conducted and carried out under federal guidelines with a comprehensive summary report. Recently an updated appraisal was commissioned and the results will be available by June 26, 2009. It is anticipated that the project will be under contract within a month of the application being submitted (July 2009) and will close as soon as funds are available. The following are the conservation entities involved and supporting this project to bring it to fruition:

The *Maine Department of Inland Fisheries and Wildlife*, recognizes the importance of this acquisition and will own and manage this property in perpetuity. *James Connolly, Regional Wildlife Biologist*, has worked in the Kennebec Estuary region for ten years and brings extensive experience in the development of the management plan of this property as part of the Merrymeeting Bay WMA. *Ken Elowe, Director of Resource Management*, prioritizes land acquisition projects and has identified this project as a priority. *Leon Bucher of MDIFW* will serve as grant administrator.

Jack Witham, President of the Kennebec Estuary Land Trust and *Carrie Kinne, Executive Director (KELT)*, are leading the negotiations with the landowner and grant application process working with all the partners on this project. *KELT* is working directly with *MDIFW* and *The Nature Conservancy* to determine the best acquisition scenario and management for the property.

Bob Houston and Stewart Fefer of the USFWS Gulf of Maine Coastal Program are providing technical assistance by identifying protected acreage by habitat type and preparing all maps necessary for this application.

Will Brune, Director of Land Protection and *Kate Dempsey, Senior Policy Advisor, at the Nature Conservancy in Maine* provided technical assistance in supporting the landowner negotiations and guidance of the application process.

The Land for Maine's Future Program is providing \$48,125 in cash (already awarded) to this project which signifies their commitment to the importance of this project. The LMF funds will serve as cash match to this proposal.

5. A project location, including two maps; A map of the State showing general location of the proposal, and a map of the project site.

Please see enclosed maps (Figs. 1, 5, 6). The Brookings Bay North Point (Berry) property is located in the town of Woolwich, Maine in Sagadahoc County and is in the confines of Brookings Bay within the Kennebec Estuary.

6. Estimated costs to attain the project objectives (see form SF424C attached).

Berry tract acquisition	\$414,000
Acquisition fees	\$ 5,800
Total Project Cost	\$419,800

7. Form D1-2010 (Attached)

8. A concise statement, with documentation, of how the proposal addresses each of the 13 numeric ranking criteria in 50 CFR 84.32, addressing each criteria individually.

Criteria 1: Will the project reverse coastal wetland loss or habitat degradation in decreasing or stable coastal wetland types?

Yes. This project, designed to permanently protect high value coastal habitat, will conserve wetlands and prevent the loss of 59.5 acres in total of which 36.0 acres are wetlands in a region imminently threatened with development of residential housing (Fig.3). Of the wetlands protected by this project, 14.0 acres are decreasing wetland types and 22.0 of the acres are stable wetland types. The precise wetland acreages indicated below are based on NWI designations.

These wetland types are critically important for maintaining the high ecological values they contribute to the region. Brackish tidal marsh is considered a rare community in Maine. The threat to these marshes comes from development that alters the water flow, increases nitrification, and provides an inroad for invasive species.

<u>Wetland Name</u>	<u>Wetland Type</u>	<u>Wetland Acres</u>	<u>Percent of Total</u>
Estuarine intertidal emergent - E2EM1P	Decreasing	4.5	
Palustrine forested - PFO1B	Decreasing	4.5	
Palustrine shrub - PSSR1R	Decreasing	2.7	
Palustrine shrub-tidal - PSS1S	Decreasing	2.3	
Total decreasing acres		14	23.5%
Estuarine intertidal mudflat - E2US3N	Stable	21.7	
Esturine intertidal rocky shore - E2RS1P	Stable	0.3	
Total stable acres		22	37.0%
Total Wetland Acres		36	60.5%
Upland Acres		23.5	39.5%
Total NWI Acres		59.5	100.0%
Calculated Acres		37.7	
Shore Frontage (feet)		1556	
Stream Length (feet)		956	

Criteria 2: Will the application significantly benefit maritime forests on coast barriers?

While this project, located in Maine, does not meet this strict definition of maritime forest on coastal barriers it holds many conditions that are essential to coastal protection. Please see Criteria 13 for consideration of the additional value of these forests.

Criteria 3: Will the project ensure long-term conservation of coastal wetland functions? The project must provide at least 20 years of conservation benefits to be eligible.

The project provides conservation in perpetuity via fee simple purchase to be held and managed by the Maine Department of Inland Fisheries and Wildlife. MDIFW has a long history of land ownership and management in the Kennebec Estuary and throughout the state.

Criteria 4: Will the completed project help accomplish the natural resource goals and objectives of one or more formal, ongoing coastal watershed management plan or effort?

Yes. This proposal fully supports the natural resource goals and objectives of the following formal, ongoing ecosystem and watershed management efforts:

In support of the North American Waterfowl Management Plan and in order to identify priority areas for acquisition in the Lower Kennebec/Merrymeeting Bay Focus Area, the U.S. Fish and Wildlife Service Gulf of Maine Coastal Program completed “Fish and Wildlife Resources in the Merrymeeting Bay and Lower Kennebec River Focus Area” in 1994, a GIS analysis of high value habitat for American black ducks and endangered species in the region (Ref. 4). In 2004, the USFWS’ Gulf of Maine Coastal Program completed a second Gulf of Maine watershed-wide analysis of high value habitat for 91 priority trust species. The Hockomock/Brookings Bay coastal marshes, tidal flats, and associated uplands are clearly identified in both analyses as high value habitat meriting permanent protection (Ref. 5).

Beginning with Habitat is a statewide initiative of federal, state and non-government conservation partners that has collated biological data and shared mapped information with towns and land trusts to support proactive planning and protection of high value habitat. This process of data sharing has led to the Hockomock Bay subsite being identified as one of Maine’s high priority areas for protection (Ref. 6).

The Maine Department of Marine Resources has developed Species Management Plans to protect and restore diadromous fish throughout the state. The Kennebec Estuary provides high value habitat for all of Maine’s diadromous species.

The National Marine Fisheries Service identifies Essential Fish Habitat for numerous marine species immediately downstream of the Kennebec Estuary. Protecting productivity and water quality of the Kennebec Estuary enhances Essential Fish Habitat.

The Land for Maine's Future Program, a program established through a State bond, one of the priorities of the program is for the acquisition of conservation lands, has consistently identified coastal habitat protection, especially of fragile and threatened coastal wetlands, as a high priority for acquisition (Ref. 7). In spring, 1998, the state of Maine's Governor-appointed Land Acquisition Priorities Advisory Committee solicited substantial public input in developing its Final Recommendations. The recommendations are endorsed by the Governor and reaffirm the focus of the Land for Maine's Future Program by identifying the protection of Maine's "Undeveloped Coastline" as one of its five highest protection priorities (Ref. 8).

U.S. Fish and Wildlife Service's Gulf of Maine Rivers Ecosystem Plan supports an ecosystem management approach within the watershed. Partnerships to protect coastal wetland habitats, migratory birds, diadromous fish and endangered and threatened species is a high priority, and permanent protection of coastal wetland habitats is identified as a resource priority in the Gulf of Maine Rivers Ecosystem Plan (Ref. 9).

The Gulf of Maine Council on the Marine Environment, an international consortium of federal, state and non-governmental organizations from the two states and three Canadian provinces bordering the Gulf of Maine, works collaboratively to manage the region's coastal and marine habitats. The first of three goals identified in the approved Gulf of Maine Action Plan: 2001-2006 is to "protect and restore coastal and marine habitats" (Ref. 10).

Maine Coastal Program Action Plan calls for the permanent protection of high value coastal habitat (Ref. 11).

Maine Coast Protection Initiative (MCPI) was established in 2004 to increase the pace and effectiveness of coastal land conservation in Maine. MCPI enhances the capacity of Maine's conservation community to preserve the character of the Maine coast by providing grants and conducting workshops, and facilitating communications among land trusts and others interested in protecting the Maine coast. MCPI includes five principal partners: Maine Coast Heritage Trust, Land Trust Alliance, Maine State Planning Office, National Oceanic and Atmospheric Administration's Coastal Service Center and U.S. Fish and Wildlife Service Gulf of Maine Coastal Program, along with 70 collaborating coastal organizations. Kennebec Estuary Land Trust is a collaborator and received significant funding from MCPI. (Ref. 12).

Non-governmental conservation organizations in Maine including The Nature Conservancy, Maine Coast Heritage Trust and the Kennebec Estuary Land Trust are deeply involved in protecting the Merrymeeting Bay/Lower Kennebec River region, including the Hockomock / Brookings Bay subsite. The Nature Conservancy has helped permanently protect more than more than 975,000 acres statewide. Maine Coast Heritage Trust has protected more than 125,000 acres in Maine. Kennebec Estuary Land Trust, a local land trust established to "benefit the general public through the preservation of natural resources," has permanently protected more than 1,300 acres and the Hockomock / Brookings Bay subsite has been identified as a priority conservation area in its Strategic Conservation Plan (Ref. 13).

Criteria 5: Will the project benefit any federally listed endangered or threatened species, species proposed for Federal listing, recently delisted species or designated or proposed critical habitat in coastal wetlands? Will it benefit State- listed species?

Yes. The marsh and bay supports endangered and threatened species. Hockomock Bay/Brookings Bay, part of a major downstream tributary of the Kennebec River supports diadromous fish, including shortnose sturgeon (federally endangered) and one of the southernmost populations of Atlantic salmon (federally endangered) in Maine.

It also supports prime habitat for the recently delisted bald eagles which are documented nesters on nearby conservation lands in close proximity to this proposed acquisition. According to Charlie Todd, MDIFW biologist, “For many years one of the only remaining pair of year-round resident bald eagles in the lower Kennebec Estuary nested on Hockomock Bay. We expect this to remain as high quality habitat for many years to come.” Although bald eagles have been removed from the federal and state endangered species list, bald eagle habitat protection is key to sustaining their recovery (verbal communication, Charlie Todd, Maine Dept. of Fisheries & Wildlife).

Coastal salt marshes and extensive mudflats, including Brookings Bay, are regularly used as foraging habitat by migrating peregrine falcons (recently federally delisted and state endangered) for foraging and are frequently seen in the area during migration.

Spotted turtles (state threatened) have also been reported though not documented on wetlands immediately north of the conservation lands included in this proposal.

Eleven species of plants that are state listed endangered, threatened or special concern have been documented by the State of Maine in the Back River/Hockomock Bay State of Maine Focus Area. No species have been documented on the property but a thorough inventory has not been completed.

The Maine Department of Inland Fisheries and Wildlife identifies all of Brookings Bay and much of Hockomock Bay as Tidal Waterfowl and Wading Bird Habitat with specific Shorebird Roosting Areas, both of which are protected by the Department of Environmental Protection under the State of Maine’s Natural Resources Protection Act (NRPA).

Criteria 6: Will the project provide. Restore or enhance important fisheries habitat?

All diadromous fish found in Maine frequent the Kennebec Estuary. The Kennebec-Sheepscot drainage provides critically important habitat for many commercially, recreationally and ecologically valuable interjurisdictional and diadromous fish including winter flounder, bluefish, striped bass, American shad, blueback herring, alewife, rainbow smelt, American eel, Atlantic sturgeon, tomcod, and sea lamprey as well as federally endangered species such as shortnose sturgeon and Atlantic salmon. Notable and distinctive features of some of the diadromous species in the Kennebec-Sheepscot River drainages, which includes Brookings Bay, are listed below:

- The Kennebec-Sheepscot River complex provides home to the largest population of shortnose sturgeon north of Hudson River – nearly 7,000 adults. It is much more common than Atlantic sturgeon in the Kennebec River, but is listed as federally endangered.
- Atlantic sturgeon, the largest sea-run fish in eastern North America, may reach 800 pounds and live 50 years or more; the species has very low populations and is listed as a “species of concern” in the United States. The Kennebec is a critical sub-adult nursery area and has breeding adults as well.
- The Kennebec River drainage holds a southernmost population of naturally occurring federally endangered Atlantic salmon in North America.
- American shad and alewives are being actively restored through a state trap and truck operation and by installation of effective fishways. The alewife population is currently more than one million and growing.
- American eel are a species of concern.
- Rainbow smelt populations in the Kennebec drainage are estimated in the tens of millions.

The Kennebec drainage supports the only spawning population of striped bass in New England. The extensive mudflats of Brookings Bay provide excellent foraging habitat. By eliminating the threat of land development and by permanently protecting natural resource values in Brookings Bay, this habitat protection proposal preserves water quality and protects approximately over 1500 feet of waterfront habitat and 26.2 acres of mudflats and salt marsh for all of these fish and forage fish species.

Criteria 7: Will the project provide, restore, or enhance important habitat for coastal-dependent or migratory birds?

Yes. The Kennebec Estuary, including the bays areas of Merrymeeting, Hockomock and Brookings and the Lower Kennebec River, represents the largest tidal estuary on the eastern seaboard north of Chesapeake Bay. More than 20% of Maine’s tidal marshes are concentrated here. The lower reaches of the watershed, including Brookings Bay where land acquisitions in this proposal are focused, are characterized by salt marsh--a rare habitat in Maine that makes up less than 1% of the state’s wetlands. The salt marshes and mud flats of Brookings Bay are a biological magnet, offering valuable foraging, nesting, migratory and wintering habitat for thousands of wading birds, shorebirds and migrating waterfowl notably the American black duck. The Hockomock/Brookings Bay and Back River region, with shallow saline waters, large run of tide, and strong tidal currents, doesn’t freeze in winter, creating high value wintering habitat for waterfowl. In fact, the Kennebec Estuary is one of the best places in Maine to see large numbers and an outstanding variety of waterfowl including black ducks, mallards, pintail, Canada geese, snow geese, teal, mergansers, scoters, goldeneye, wood duck, ring-necked duck, common eiders, bufflehead and oldsquaw. A wide variety of wetland associated and upland nesting birds adds to the diversity and importance of the project parcel. (Ref. 14).

Black ducks have declined dramatically in the Atlantic Flyway over the last several decades, so protecting their key habitat is of prime importance (written communication, Stewart Fefer, U.S. Fish & Wildlife). Similarly, migratory shorebirds depend on undisturbed coastal feeding and

roosting sites. With increasing coastal development, the number of undisturbed sites has declined throughout coastal Maine, and concerted attention is needed to protect remaining high value sites.

Based on surveys by state and federal biologists, the Hockomock/Brookings Bay project area proposed for permanent protection is noted for its state-designated High Value Tidal Waterfowl and Wading Bird Areas, and it's Shorebird Roosting Areas, under Maine's Natural Resources Protection Act (Fig. 4a).

The USFWS Gulf of Maine Coastal Program's GIS analysis, "Identification of Priority Habitat for Trust Species in the Gulf of Maine watershed (2003)," the Brookings Bay project area provides habitat for 55 of 91 rare, threatened and declining species of migratory birds and fish found in the Gulf of Maine watershed. The analysis (see Table 1 for data summary, Figure 2 for map) further documents that the property's shorefront and upland buffer provides particularly high value habitat for the following 32 coastal migratory birds:

- Shorebirds -- American oystercatcher, Black-bellied plover, Hudsonian godwit, Least sandpiper, Red knot, Ruddy turnstone, Sanderling, Semi-palmated sandpiper, Short-billed dowitcher, Solitary sandpiper and Whimbrel
- Wading birds -- Little blue heron, Snowy egret and Tricolored heron
- Waterfowl --Black duck, Greater scaup, Least scaup, and Wood duck
- Other Waterbirds-- American bittern, Yellow rail
- Raptors -- Bald eagles, Osprey, Northern harrier and Short-eared owl
- Neotropical Migrants -- Baltimore oriole, Blackburnian warbler, Black-throated blue warbler, Marsh wren, Nelson's sharp-tailed sparrow, Saltmarsh sharp-tailed sparrow, Sedge wren and Wood thrush.

Other benefits to coastal-dependent or migratory birds in the project area are identified by a number of plans and organizations outlined here:

North American Waterfowl Management Plan, Atlantic Coast Joint Venture identifies five Focus Areas in Maine with "wetlands and associated upland habitats... that are high priority wintering, migration or production habitats for black ducks and other waterfowl." Brookings Bay is identified as a high priority region for protection within the Lower Kennebec/ Merrymeeting Bay Focus Areas. The Focus Area was designated for its "importance during spring and fall migrations of waterfowl," its "intertidal mudflat, brackish water and salt marsh systems which provide important migration and wintering habitats for black ducks and other waterfowl," its "importance for both breeding and wintering eagle populations," its islands and sand beaches at the mouth of the Kennebec River which "provide nesting habitat for least terns, roseate terns and piping plovers," and its "mudflat and salt marsh systems" which provide "important habitats for other migrating shorebirds, and "striped bass, Atlantic salmon and Atlantic Sturgeon fisheries" (Ref. 15).

Maine Wetlands Protection Coalition composed of representatives from the USFWS's Gulf of Maine Coastal Program, MDIFW, Maine Coast Heritage Trust, The Nature Conservancy, Ducks Unlimited, Inc. and Trust for Public Land, was established to work with local land trusts to develop habitat protection strategies in support of the North American Waterfowl Management

Plan in Maine. To date, six North American projects and five Coastal Wetland Grants have been successfully carried out in the Kennebec Estuary including the Merrymeeting Bay/Lower Kennebec River region, with the active support of the Coalition members.

Maine Department of Inland Fisheries and Wildlife, Maine Natural Areas Program and other state agencies have used a variety of methods for assessing habitat quality and importance. (Essential Habitat, Natural Resources Protection Act, and Biological Conservation Database) Most recently the area has been protected by the Natural Resources Protection Act as Tidal Waterfowl and Wading Bird Habitat, and Shorebird Feeding and Roosting Areas. All of these designations support Brookings Bay meriting permanent protection through fee and easement acquisition (Fig. 4a, 4b).

Ducks Unlimited, Inc.'s Habitat 2000: Campaign for a Continent is a six-year initiative to protect 1.7 million acres of wetland habitat for North American wetlands and waterfowl. Ducks Unlimited is dedicated to “fulfilling the annual life cycle needs of North American waterfowl by protecting, enhancing, restoring and managing important wetlands and associated uplands.” This proposal fully supports Ducks Unlimited’s nationwide objectives.

National Bird Conservation Plans, (Partners in Flight, U.S. Shorebird Conservation Plan, North American Colonial Waterbird Conservation Plan, North American Bird Conservation Initiative), all promote the protection of high value habitat in the Kennebec Estuary, including the Brookings Bay Hockomock Bay region.

Criteria 8: Will the project prevent or reduce input of contaminants to the coastal wetlands and associated coastal waters that are already contaminated?

The protection of wetlands always provides a buffer for both upland runoff of sediment, particulate matter, and contaminants. Wetlands are also well established areas that can improve water quality.

The Brookings Bay North Point (Berry) tract is also significant in the face of anticipated sea-level rise; were it to be developed for housing, the homes would encroach on the tidal marsh. Almost all new home development in this region rely on individual septic systems in shallow soil and current codes for private systems do not account for sea-level rise and could easily result in contaminants going into what is currently a pristine marsh.

Even though the lower Kennebec River watershed is relatively isolated from direct industrial sources of pollution, a recent study on organic pollutants, including polychlorinated biphenyls, polybrominated diphenyl ethers (PBDEs), and Teflon-fluorinated carbons found elevated levels in bird eggs, especially from species breeding along marine and estuarine systems, including the bald eagle, osprey and piping plover. Piping plover eggs found at the mouth of the Kennebec had some of the highest PBDE levels of those examined (60 eggs of 18 species) (Ref. 16). Protection of upland sites and wetland buffers reduce the chance for additional contamination by preventing placement of septic systems and other potential sources of pollution.

Criteria 9: Will the project leverage other ongoing coastal wetlands conservation efforts in an area or provide additional impetus for conservation?

Yes, this project supports ongoing acquisition goals of the Maine Wetlands Protection Coalition. The Coalition is actively working with multiple landowners, exploring opportunities available for conservation either through acquisition or donation. As projects like this successfully close with the financial assistance of the Coastal Wetland Grant Program, the mix of federal, state, and private support provides a great opportunity to demonstrate to the public the effectiveness of collaborative conservation through informational outreach with the media and on site visits (see Figs. 1 & 6 for nearby conserved lands and Coastal Wetland Grant projects).

Additionally, this proposal builds upon the remarkable success of the Maine Wetlands Protection Coalition, led by Maine Department of Inland Fisheries and Wildlife and includes US Fish and Wildlife Service and many non-governmental organizations. The Coalition has made conservation of the significant concentration of the remarkably productive and diverse marshes of the Kennebec Estuary a top priority. By pooling the resources of individual organizations and by leveraging private land contributions with significant federal, state and municipal funding, the coalition has accomplished exponentially more than any one organization could achieve: nearly 15,428 acres are now in conservation.

Criteria 10: Will the project receive financial support, including in-kind match, from private, local or other Federal interests?

Yes. Because the Brookings Bay area is identified as a high priority area for protection the conservation partners have worked together so this project will receive financial and non-financial support from the entities listed below. Detail of this support is as follows:

Cash support:

1. KELT: In-Kind Landowner Bargain Sale Contribution \$ 7,140
2. State of Maine Award through Land for Maine's Future Program: \$48,125
3. Kennebec Estuary Land Trust: \$75,923

Non-Match, In-Kind support:

1. Maine Coast Heritage Trust: \$1000 (¼ portion of appraisal cost)
2. Kennebec Estuary Land Trust: \$1000 (¼ portion of appraisal cost)
3. Maine Department of Inland Fisheries & Wildlife: \$1000 (¼ portion of appraisal cost)
4. Landowner: \$1000 (¼ portion of appraisal cost)
5. U.S Fish and Wildlife Service's Gulf of Maine Coast Program: \$3,500 collecting and assembling biological data and technical mapping expertise.
6. The Nature Conservancy: \$4,000 staff assistance with drafting of grant proposal and securing financial funding.

Criteria 11: Does the application significantly reduce the Federal share by providing more than the required match amount? (Only cash above the required match applies.)

Yes, the project budget commits funding over the required 25% and increases it by an additional 25%.

Fee Simple Purchase	\$414,000
(Berry Tract: Appraised Value)	
Associated Costs	\$ 5,800
(Real Estate Tax Proation \$2,500)	
(Title Insurance \$1,000)	
(Legal \$2,000)	
(EHA \$ 300)	
Total Project Cost	\$419,800
National Coastal Wetlands Conservation Grant Request	\$288, 612 (68.7%)
Match Requirement- Non Federal	\$104,950
Other Match	\$ 26,238
TOTAL Non- Federal Match Participation	\$131, 188 (31.3%)

Criteria 12: Is the project designed to increase environmental awareness and develop support for coastal wetlands conservation? Does it provide recreational opportunities that are consistent with the conservation goals of the site?

Funding from the Land for Maine's Future Program requires public access, including access for hunting, fishing and trapping. The Brookings Bay North Point (Berry) tract has a 50 foot right of way from a public road to its northwest corner and MDIFW's policy is that all property is accessible to the public. All of the partners of the Maine Wetland Protection Coalition require and guarantee public access to fee properties while adhering to the needs of balancing multiple recreational uses and habitat protection.

As part of its mission, MDIFW permits public access and passive recreational activities, as long as those activities do not conflict with wildlife management objectives. Appropriate activities, including fish and wildlife management, scientific research, hunting, trapping, fishing, hiking, wildlife viewing and public education, will all be permitted on this tract. In addition, The Nature Conservancy will work with MDIFW to monitor the impacts of sea-level rise on this tract.

The acquired property will be owned and managed by Maine Department of Inland Fisheries and Wildlife (MDIFW), guided by an area management plan prepared and periodically updated by the Regional Wildlife Biologist, with public input, and reviewed and approved by the Supervisor of the Wildlife Management Section. The management plan will be developed consistent with the MDIFW's land acquisition and management goals, including: to provide a statewide, ecological based system of land holdings for the protection and enhancement of important wildlife habitats that also provide opportunities for public recreation. Educational and recreational access opportunities will be addressed in the plan.

The Kennebec Estuary Land Trust, in collaboration with the Regional Wildlife Biologist from MDIFW, plans to organize and provide educational opportunities on the Berry parcel and other conserved parcels in the region. It is anticipated that the next series of Trail Building Workshops for those who are beginners or with advanced skills will have expert training leadership from the Regional Wildlife Biologist and the Director of Stewardship from The Nature Conservancy. This series of trail building workshops, scheduled property walks, and guided walks targeting specific topics, (including mud plants, medicinal plants, bird identification to name a few) will utilize this parcel to increase environmental awareness. The goal is to encourage the public to use these lands responsibly while at the same time gaining an understanding and appreciation of the natural world.

Criteria 13: Do any other factors, not covered in the previous criteria, make this project or site particularly unique and valuable?

Maritime Forests: According to the Maine Natural Areas Program this site is likely to be dominated by oak-pine forest, which remains in heavy threat of coastal development. Even though these forests help maintain extremely important fish and wildlife habitat values in Maine's coastal region, it would not trigger rare natural community status. Therefore, these forests, which are under severe threat because of their waterfront allure in the real estate market, are particularly threatened because regulatory controls that prevent habitat loss, fragmentation and disturbance are extremely limited.

Climate Adaptation: Besides protecting habitat values, conservation is vitally important in the Kennebec Estuary to protect other wetland functions. Within the Estuary, these functions include water filtration, water quality, storm water retention and climate change adaptation. A report prepared for The Nature Conservancy in August 2007 entitled "Conserving Freshwater and Coastal Resources in a Changing Climate" highlights the importance of protecting upland adjacent to tidal wetlands as an adaptation strategy (Ref. 17). The report examines the vulnerability of freshwater and coastal systems and suggests conservation strategies to encourage ecosystem resilience. Another report by The Nature Conservancy completed in October 2007 entitled "Helping Natural Communities Adapt to Climate Change" analyzes conservation and restoration projects in the east that can positively impact climate change adaptation. The Kennebec Estuary was highlighted as one of the case studies in the report (Ref. 18). The gradients in habitat and salinity within the estuary provide potential for adaptation in the face of sea level rise and accompanying upstream movement of the salt wedge and thereby add to the system's natural resilience. The conservation of low-lying upland and freshwater wetlands

adjacent to tidal wetlands was highlighted as key to allowing for potential upslope migration of such tidal wetlands with sea level rise. This proposal supports the conservation of freshwater wetlands and adjacent uplands that would provide opportunity for climate change adaptation in the Kennebec Estuary.

This site, because of its location between the Sheepscot and Kennebec Rivers, is important for protection as climate change pushes sea levels higher and inland. The protection of the tracts within the Brookings Bay subsite also provide the opportunity for freshwater tidal species and the regionally significant waterfowl habitat to migrate upslope into low lying non-tidal wetlands and uplands during current and modeled projections for a 1-2 meter sea level rise. The gradual slope of the Berry tract would allow for inland migration of wetlands with sea-level rise.

Current Threat: The owner of the property is elderly, in declining health, and is ready to sell. Negotiations have been ongoing for over two years and her impatience grows. Pre-acquisition may be required to prevent it from going on the market. On a recent visit she stated “I should just put up a for sale sign and walk away”. If action is not taken soon, it is likely we will lose the parcel to a developer.

9. A description of the State trust fund that supports a request for a 75 percent Federal share in sufficient detail for the Service to make an eligibility determination, or a statement that eligibility has been previously approved and no change has occurred in the fund.

Eligibility for 75% federal cost share is pre-approved and no change has occurred for the following reasons:

- The proceeds of the state of Maine’s migratory waterfowl permit are deposited in a special account held by the Maine Department of Inland Fisheries and Wildlife; these funds are used to acquire, protect and manage waterfowl habitat (see MRSA, Title 12, §10206.
- Maine sponsors a state income tax “chickadee check-off” that supports non-game wildlife research, management and protection initiatives.
- The Maine Outdoor Heritage Fund, which is supported through sales of a specific lottery ticket, funds fish, wildlife and endangered plant and animal habitat-protection work.
- A substantial percentage of the proceeds from the sale of the state of Maine’s loon license plate are also directed to fish and wildlife habitat protection.
- The state’s Land for Maine’s Future Board provides funds to acquire conservation lands statewide. The fund was re-approved as a bond by state voters in 2007 and is funding the match for this grant.
- A new bond issue is now pending in the Maine Legislature and is being addressed in the current legislative session. The anticipated outcome would be a public referendum in fall 2010.

10. List of other current coastal acquisitions, restoration, enhancement and management action; agencies involved; relationship to the proposed grant; and how the application fits into comprehensive natural resource plans for the area.

The conservation partners listed in #4 have worked together since 1992 when the Maine Wetlands Protection Coalition was established to coordinate efforts along the coast of Maine. This collaboration brought the entities involved in the Kennebec Estuary together to identify and prioritize hundreds of parcels of land that have been deemed of special value. Although the comprehensive list may include hundreds of properties totaling 27,000 acres the reality is at any given time there may be 15 to 20 projects identified as top priorities. The coordinated effort by these partners has made a difference resulting in over 15,000 acres of conserved land. An adjacent parcel was recently purchased with NAWCA funds and additional acquisitions around Brookings Bay are in the planning stages.

This proposal builds upon more than a decade of success that the Maine Wetlands Protection Coalition has had in protecting essential wetlands habitat in the Merrymeeting Bay and Lower Kennebec River Focus Area. Private donations match six large NAWCA grants, five other National Coastal Wetland Conservation Grants (Coastal Wetland), two Land for Maine's Future awards, and a National Fish and Wildlife Foundation grant. They have resulted in the protection of more than 15,000 acres of high value habitat and miles of shoreline in conservation ownership.

This Focus Area is identified as a top priority for permanent protection in the North American Waterfowl Management Plan (Ref. 15). The U.S. Fish and Wildlife Service Gulf of Maine Coastal Program's GIS analysis identified a total of 27,000 acres of high value habitat in this Focus Area (Ref. 4).

The Brookings Bay North Point (Berry) Tract lies within one of the highest priority areas for conservation work within the larger Kennebec Estuary Focus Area, the Kennebec River/Hockomock/Brookings Bay subsite. It provides the particular opportunity to fill a key gap in the mosaic of conserved lands. The project protects our existing investment in surrounding conservation lands, permanently eliminates a host of potential threats to the Kennebec River and Brookings Bay that are associated with development and ensures the long-term protection of its natural resource values.

Since 1992, the Maine Wetlands Protection Coalition has been managed by Maine Department of Inland Fisheries and Wildlife in partnership with the U.S. Fish and Wildlife Service Gulf of Maine Coastal Program, The Nature Conservancy in Maine, Maine Coast Heritage Trust, Ducks Unlimited and several local land trusts. The acquisition of the Berry tract by MDIFW is of highest priority of the Maine Wetlands Protection Coalition.

The Kennebec Estuary is one of the Focus Areas for Maine within the Atlantic Coast Joint Venture of the North American Waterfowl Management Plan. The Coalition's decade-long focus on habitat protection work in the Kennebec Estuary matches its placement of high priority by all Coalition partners on protecting high value habitat and meeting natural resource protection goals (as described in greater detail in the response to Criteria 4).

Recognizing the habitat values of the region, biologists in the Coalition conducted a GIS analysis, identifying 27,000 acres of the highest value habitat for waterfowl and threatened and endangered species in the Kennebec Estuary. Next, land protection specialists in the Coalition began negotiations with landowners to identify high value habitat that could be conserved. The various partners within the Coalition have worked with a large number of private landowners to achieve conservation success.

The Coastal Estuarine Land Conservation Protection (CELCP) program was established by Congress in Fiscal Year 2002 and provides grants to states or local units of government to protect coastal and estuarine areas with significant conservation, recreation, ecological, historical or aesthetic values, or those that are threatened by conversion from their natural state to other uses, giving priority to lands which can be effectively managed and protected and that have significant ecological value. The Kennebec Estuary is a priority site for acquisition. The State of Maine's Coastal Program administers the grant process and the Maine Department of Inland Fisheries and Wildlife coordinates with the Coastal Program to identify acquisition priorities. A parcel in the Kennebec Estuary was just awarded a CELCP award.

In the 1990s, a coalition of federal and state agencies, non-government organizations and riverfront towns began working together as the Kennebec Coalition with the goal of removing Edwards Dam which was located at the head-of-tide. The Dam had blocked diadromous fish passage for 162 years and when it was removed in 1999, the river was restored to free-flowing for another 20 miles upstream. Since then, the biological vitality of the Kennebec Estuary and lower river Corridor has been rebounding, restoring fisheries, wildlife, water quality and recreation. Bald eagles, kingfisher osprey, great blue heron and snowy egret abound, feeding on growing populations of striped bass and schools of river herring. Furbearing mammals, such as red and gray fox, river otter, mink and beaver are also increasing along the riverbanks. The Maine Department of Marine Resources and the U.S. Fish and Wildlife Service continue to work together with the Natural Resources Conservation Service, the Atlantic Salmon Federation, the National Fish and Wildlife Foundation, the Natural Resources Council of Maine, Maine Rivers, Trout Unlimited and other organizations to restore additional miles of fish passage upstream, with the promise of further increasing the fisheries and wildlife values of the Kennebec River corridor.

The success of the ongoing river restoration work is directly linked to the importance of protecting high value riparian habitat through this Coastal Wetland grant proposal and other habitat protection initiatives.

A broad range of conservation landowners manage significant acreage within the Kennebec Estuary. They are the Maine Department of Inland Fisheries and Wildlife, the Maine Department of Conservation, The Nature Conservancy, Maine Coast Heritage Trust, the Chewonki Foundation, the Appalachian Mountain Club, the Friends of Merrymeeting Bay, the Phippsburg Land Trust and the Kennebec Estuary Land Trust, as well as several large private landowners. Their goal is to protect the region for its fish and wildlife habitat values in perpetuity. Conservation activities in the region are significant but some of the identified high value habitat remains unprotected from development.

The State of Maine provides funding for acquisition, restoration and for management of coastal properties through its migratory waterfowl permit fund, the Maine Outdoor Heritage Fund, proceeds from the sale of a loon automobile license plate, the state income tax “chickadee check-off” and through the Land for Maine’s Future Program (LMFP). In 2007, LMFP was infused with \$17 million in bond funding. Another bond will be voted on in November 2010.

11. Public involvement or interagency coordination on coastal wetlands conservation projects that has occurred or is planned that relates to the application (Specify the organization or agencies involved and dates of involvement).

Government cooperators in this joint effort to protect the Kennebec River/Brookings Bay Parcel include the U.S. Fish and Wildlife Service’s Gulf of Maine Coastal Program and the Maine Department of Inland Fisheries and Wildlife. Both government agencies have assisted by collecting and assembling biological data and mapping expertise. The Maine Department of Inland Fisheries and Wildlife will serve as the Grantee for this project and will own and manage the Property as part of the Merrymeeting Bay Wildlife Management Area. The Land for Maine’s Future program is expected to provide significant financial support to the project. In addition, The Kennebec Estuary Land Trust has played a pivotal role by negotiating with the landowner, working with The Nature Conservancy and MDIFW, working towards the successful purchase and protection of the Brookings Bay North Point (Berry) parcel.

For this project the Maine Department of Inland Fisheries and Wildlife will serve as grantee upon closing of the transaction. The process began in 2000 when initial contact with all Brookings Bay landowners was made by Maine Coast Heritage Trust and is currently being led by the Kennebec Estuary Land Trust serving as a key leader by negotiating with the landowners land protection options, finalizing details and soliciting non-federal matching partners. Throughout the project The Nature Conservancy committed staff time to provide guidance in the landowner negotiations, assist with drafting of the grant proposal and securing financial funding.

Tables and Figures:

Table 1: Gulf of Maine Watershed Habitat Summary Analysis

Figure 1: Locality Map with proposed parcel and conservation land

Figure 2: Valuable Habitat for USFWS Priority Trust Species

Figure 3: Wetlands

Figure 4a: Maine Wildlife Data

Figure 4b: Maine Wildlife and Plant Data

Figure 5: Aerial Imagery with Project Parcel

Figure 6: Project site and conservation lands

Figure 7: Photos of the project area

Gulf of Maine Watershed Habitat Analysis Data Summary for Berry Parcel, Woolwich, Maine

	Species	Score											Total Acres w/ Habitat	Sum of Habitat Unit	Average Habitat Unit Score	Relative Score
		Acres of habitat at the following relative scores (on a 0 to 10 scale, with 0 = unsuitable and 10 = optimal for that species)											Acres in parcel having non- zero habitat values	Sum of [# of acres X respective cell scores] for entire parcel	Sum of habitat units divided by total acreage	Relative score for the parcel, where 1 is the average for the GOM watershed
			1	2	3	4	5	6	7	8	9	10				
Raptors	Northern Goshawk	59.2														
	Northern Harrier	59.2														
	Peregrine Falcon, eastern	59.2														
	Red-Shouldered Hawk	59.2														
	Short-eared Owl	59.2														
Shorebirds	American Oystercatcher	33.8	25.4										25.4	25.4	0.4	57.3
	American Woodcock	59.2														
	Black-bellied Plover	33.8	3.1	14.2								8.0	25.3	111.5	1.9	90.5
	Buff-breasted Sandpiper	42.9	16.2										16.2	16.2	0.3	1.8
	Common Snipe	59.2														
	Hudsonian Godwit	36.9		22.2									22.2	44.4	0.8	77.4
	Killdeer	36.9		22.2									22.2	44.4	0.8	1.2
	Least Sandpiper	33.6		17.6			8.0						25.6	75.2	1.3	53.1
	Purple Sandpiper	58.9		0.2									0.2	0.4		1.4
	Red Knot	33.6	3.3	22.2									25.5	47.7	0.8	58.5
	Ruddy Turnstone	36.7	22.2	0.2									22.4	22.6	0.4	31.7
	Sanderling	36.7	0.2	22.2									22.4	44.6	0.8	51.7
	Semi-palmated Sandpiper	33.8	3.1	14.2								8.0	25.3	111.5	1.9	87.3
	Short-billed Dowitcher	33.8	3.1	22.2									25.3	47.5	0.8	44.4
	Solitary Sandpiper	36.9	22.2										22.2	22.2	0.4	8.4
	Upland Sandpiper	59.2														
	Whimbrel	33.6	0.2	25.4									25.6	51.0	0.9	12.4
Songbirds and Other Birds	Baltimore Oriole	56.9										2.2	2.2	22.0	0.4	0.6
	Bay-breasted Warbler	59.2														
	Bicknell's Thrush	59.2														
	Blackburnian Warbler	45.6										13.6	13.6	136.0	2.3	0.7
	Blackpoll Warbler	59.2														
	Black-throated Blue Warbler	36.5										22.7	22.7	227.0	3.8	1.0
	Blue-winged Warbler	59.2														
	Canada Warbler	56.0										3.1	3.1	31.0	0.5	0.6
	Cape May Warbler	59.2														
	Chestnut-sided Warbler	52.7										6.4	6.4	64.0	1.1	0.6
	Eastern Meadowlark	59.2														
	Field Sparrow	59.2														
	Golden-winged Warbler	59.2														
	Grasshopper Sparrow	59.2														
	Louisiana Waterthrush	59.2														
	Marsh Wren	57.2			2.0								2.0	6.0	0.1	2.5
	Nelson's Sharp-tailed Sparrow	56.0							3.1				3.1	21.7	0.4	15.9
	Northern Flicker	52.7										6.4	6.4	64.0	1.1	0.4
	Olive-sided Flycatcher	58.0		1.1									1.1	2.2		
	Prairie Warbler	57.8										1.3	1.3	13.0	0.2	0.5
	Red Crossbill	59.2														
	Red-headed Woodpecker	59.2														
	Saltmarsh Sharp-tailed Sparrow	56.7			2.4								2.4	7.2	0.1	10.6
	Seaside Sparrow	59.2														
	Sedge Wren	56.9										2.2	2.2	22.0	0.4	2.1
	Spruce Grouse	59.2														
	Veery	43.1	16.0										16.0	16.0	0.3	0.4
	Whip-poor-will	59.2														
	Wood Thrush	35.4			11.1		12.7						23.8	96.8	1.6	0.7
Waterbirds	American Bittern	52.9		0.2	0.2	2.9	1.6					1.3	6.2	33.6	0.6	2.9
	American Black Duck	30.5				0.2	3.1		6.2			19.1	28.6	250.7	4.2	7.1
	Arctic Tern	59.2														
	Black Scoter	59.2														
	Black Tern	59.2														
	Common Loon	59.2														
	Common Tern	59.2														
	Greater Scaup	37.4					2.7					19.1	21.8	204.5	3.5	21.6
	Least Tern	59.2														
	Lesser Scaup	37.4					2.7					19.1	21.8	204.5	3.5	21.6
	Little Blue Heron	30.5				25.6	3.1						28.7	117.9	2.0	17.3
	Little Gull	59.2														
	Osprey	10.0	17.8	0.7	8.9	21.8							49.2	133.1	2.2	3.4
	Pied-billed Grebe	59.2														
	Razorbill	59.2														
	Snowy Egret	33.6					25.6						25.6	128.0	2.2	38.6
	Surf Scoter	59.2														
	Tricolored Heron	33.6					25.6						25.6	128.0	2.2	124.8
	White-winged Scoter	59.2														
	Wood Duck	40.3			8.2		7.3			1.6		1.8	18.9	91.9	1.6	1.5
	Yellow Rail	59.2														
Federally Listed Species	Atlantic Salmon	36.5				0.7						22.0	22.7	222.8	3.8	0.8
	Bald Eagle	7.1		0.7		21.8	29.6						52.1	236.6	4.0	4.4
	Canada Lynx	59.2														
	Eastern Prairie Fringed Orchid	59.2														
	Furbish's Lousewort	59.2														
	Piping Plover	59.2														
	Plymouth Redbelly Turtle	59.2														
	Robbins' Cinquefoil	59.2														
	Roseate Tern	59.2														
	Shortnose Sturgeon	36.5					0.7					22.0	22.7	223.5	3.8	0.8
	Small Whorled Pogonia	59.2														
Fish and Invertebrate	Alewife	36.5					0.7					22.0	22.7	223.5	3.8	0.8
	American Eel	36.5					0.7					22.0	22.7	223.5	3.8	0.5
	American Shad	36.5					0.7					22.0	22.7	223.5	3.8	0.8
	Atlantic Sturgeon	36.5					0.7					22.0	22.7	223.5	3.8	0.8
	Blueback Herring	36.5					0.7					22.0	22.7	223.5	3.8	0.8
	Bluefish	36.7										22.5	22.5	225.0	3.8	0.5
	Horseshoe Crab	36.9										22.2	22.2	222.0	3.8	1.3
	Winter Flounder	36.7						22.2	0.2				22.4	134.6	2.3	0.3
Extended Fish Values	Alewife - extended	36.5					0.7					22.0	22.7	223.5	3.8	11.6
	Atlantic Salmon - extended	59.2														
	Blueback Herring - extended	59.2														
	Shad - extended	59.2														

Parcel acreage: approximately 59.5 total acres (including adjacent intertidal wetland acres, if applicable)

Gulf of Maine Watershed Habitat Analysis
Species Directory of Habitat Score Definitions and Ranges Modeled

	Species	Habitat Modeled (see meaning of specific habitat scores under the indicated sequence in table below)
Raptors	Northern Goshawk	A; breeding
	Northern Harrier	A; breeding, wintering
	Peregrine Falcon, eastern	F; nesting
	Red-Shouldered Hawk	A; breeding, wintering
	Short-eared Owl	A; roosting, wintering
Shorebirds	American Oystercatcher	R; breeding, migration
	American Woodcock	A; breeding, migration
	Black-bellied Plover	G; migration
	Buff-breasted Sandpiper	P; migration
	Common Snipe	A; breeding, migration
	Hudsonian Godwit	R; migration
	Killdeer	G; all stages
	Least Sandpiper	G; migration
	Purple Sandpiper	G; migration, wintering
	Red Knot	G; migration
	Ruddy Turnstone	R; migration
	Sanderling	G; migration
	Semi-palmated Sandpiper	G; migration
	Short-billed Dowitcher	G; migration
	Solitary Sandpiper	R; migration
	Upland Sandpiper	A; breeding, migration
	Whimbrel	G; migration

	Species	Habitat Modeled (see meaning of specific habitat scores under the indicated sequence in table below)
Songbirds and Other Birds	Baltimore Oriole	O; breeding, migration
	Bay-breasted Warbler	O; breeding, migration
	Bicknell's Thrush	A; breeding, migration
	Blackburnian Warbler	O; breeding, migration
	Blackpoll Warbler	O; breeding, migration
	Black-throated Blue Warbler	O; breeding, migration
	Blue-winged Warbler	A; breeding, migration
	Canada Warbler	A; breeding, migration
	Cape May Warbler	O; breeding, migration
	Chestnut-sided Warbler	A; breeding, migration
	Eastern Meadowlark	A; breeding, wintering
	Field Sparrow	A; breeding, wintering
	Golden-winged Warbler	O; breeding, migration
	Grasshopper Sparrow	A; breeding, migration
	Louisiana Waterthrush	O; breeding, migration
	Marsh Wren	O; breeding, migration
	Nelson's Sharp-tailed Sparrow	Q; breeding, migration
	Northern Flicker	A; breeding, wintering
	Olive-sided Flycatcher	A; breeding, migration
	Prairie Warbler	O; breeding, migration
	Red Crossbill	O; all stages
	Red-headed Woodpecker	O; breeding, migration
	Saltmarsh Sharp-tailed Sparrow	A; breeding, migration
	Seaside Sparrow	O; breeding, migration
	Sedge Wren	A; breeding, migration
	Spruce Grouse	O; all stages
	Veery	A; breeding, migration
	Whip-poor-will	O; breeding, migration
	Wood Thrush	A; breeding, migration

	Species	Habitat Modeled (see meaning of specific habitat scores under the indicated sequence in table below)
Waterbirds	American Bittern	A; breeding, migration
	American Black Duck	A; all stages
	Arctic Tern	D; breeding, migration
	Black Scoter	A; wintering, migration
	Black Tern	F; breeding, migration
	Common Loon	H; all stages
	Common Tern	D; breeding, migration
	Greater Scaup	A; wintering, migration
	Least Tern	J; breeding, migration
	Lesser Scaup	A; wintering, migration
	Little Blue Heron	S; breeding, migration
	Little Gull	U; wintering
	Osprey	E; breeding, migration
	Pied-billed Grebe	A; breeding, migration
	Razorbill	T; all stages
	Snowy Egret	S; breeding, migration
	Surf Scoter	A; wintering, migration
	Tricolored Heron	S; breeding, migration
	White-winged Scoter	A; wintering, migration
	Wood Duck	A; breeding, migration
	Yellow Rail	O; breeding, migration

	Species	Habitat Modeled (see meaning of specific habitat scores under the indicated sequence in table below)
Federally Listed Species	Atlantic Salmon	B; breeding, migration
	Bald Eagle	E; breeding, wintering
	Canada Lynx	A; all stages
	Eastern Prairie Fringed Orch	F; all stages
	Furbish's Lousewort	G; all stages
	Piping Plover	K; breeding, migration
	Plymouth Redbelly Turtle	L; all stages
	Robbins' Cinquefoil	F; all stages
	Roseate Tern	D; breeding, migration
	Shortnose Sturgeon	C; all stages
	Small Whorled Pogonia	F; all stages
Fish and Invertebrate	Alewife	C; breeding, migration
	American Eel	C; growth, migration
	American Shad	C; breeding, migration
	Atlantic Sturgeon	C; breeding, migration
	Blueback Herring	C; breeding, migration
	Bluefish	A; growth, migration
	Horseshoe Crab	I; breeding, juvenile, and adult
	Winter Flounder	A; all stages
Extended Fish Values	Alewife - extended	M; breeding, riparian buffer
	Atlantic Salmon - extended	N; breeding, riparian buffer
	Blueback Herring - extended	M; breeding, riparian buffer
	Shad - extended	M; breeding, riparian buffer

		Habitat Score Definitions										
		0	1	2	3	4	5	6	7	8	9	10
Sequence	A	no value	modeled lowest	modeled low value	modeled low medium	modeled medium low	modeled medium	modeled medium	modeled medium high	modeled high medium	modeled higher	modeled highest
	B	no value		modeled offshore marine		modeled inshore marine	likely used riverine					recent use riverine
	C	no value		modeled offshore marine		potential use freshwater	modeled inshore marine					known use freshwater
	D	no value			likely feeding areas	historic nesting	potential nesting					recent nesting
	E	no value	modeled low value nesting	foraging	modeled medium value nesting	modeled high value foraging	modeled high value nesting			likely feeding areas	known use wintering areas	known use nest areas
	F	no value	modeled lowest		modeled low medium	modeled medium low	modeled medium		modeled medium high			known use
	G	no value	modeled lowest	modeled low value	modeled low medium		known some use					known high use
	H	no value	modeled lowest	modeled low value			likely used		known some use			known nesting use
	I	no value			modeled adult habitat				modeled adult+juvenile			modeled adult + juv.+ breed.
	J	no value		modeled nesting	likely feeding areas	past nesting or plover nests	past nesting and plover nest					recent nesting
	K	no value		modeled nesting		historic nesting		likely feeding areas		MA heritage use areas	likely feeding areas	recent nesting
	L	no value			modeled nesting	modeled nesting	modeled aquatic		known use suitable			known use optimal
	M	no value			riparian buffer	potential use freshwater	modeled inshore marine					known use freshwater
	N	no value			likely used buffer		likely used	riparian buffer				recent use
	O	no value		modeled low value	modeled low medium	modeled medium low	modeled medium		modeled medium high			modeled highest
	P	no value	modeled lowest		modeled low medium		known some use					
	Q	no value							modeled medium high			known nesting use
	R	no value	modeled lowest	modeled low value	known some use		known some use					known high use
	S	no value			modeled low value foraging	modeled medium low foraging	modeled medium foraging		modeled high value foraging	historic nesting	feeding areas near recent colonies	recent nesting
	T	no value	modeled low value foraging			known winter feeding areas	feeding areas near colonies					recent nesting
	U	no value				modeled roosting areas	known feeding areas					

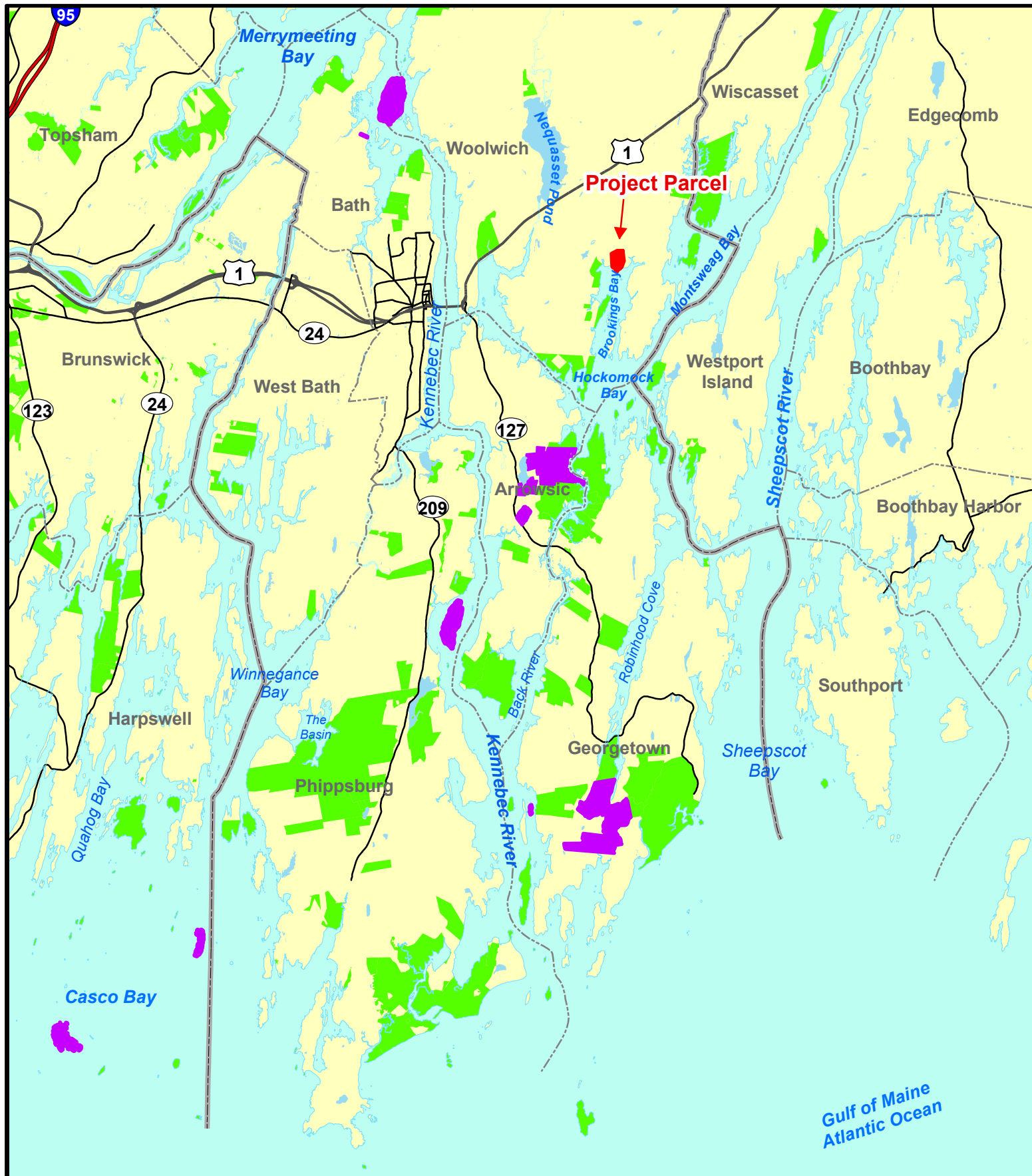


Figure 1. Locality map with proposed project parcels and conservation/recreation lands. Berry Parcel in Woolwich, Maine, Coastal Wetland Grant, June 2009.

Legend

- Proposed Protection
- Prior Coastal Wetland Grants
- Conservation/Recreation Lands

0 0.5 1 2 3 Miles

0 1 2 3 4 Kilometers



Conservation/Recreation parcels from ME W.P.C.
Base data from MEGIS.

Map by USFWS Gulf of Maine Coastal Program
BHouston 18 June 2009 Map #360



**Figure 2. Valuable Habitat,
U.S. Fish & Wildlife Service
Priority Trust Species
Berry Parcel,
Woolwich, Maine,
Coastal Wetland Grant,
June 2009.**

The U.S. Fish & Wildlife Service's Gulf of Maine Program mapped areas throughout the Gulf of Maine watershed having high species diversity and high habitat value for priority Fish & Wildlife Service trust species including federal endangered and threatened species, declining neo-tropical migrants, shore-birds, waterfowl, wading birds and sea-run fishes.

This map portrays the data in a three-level gradient (the top 25%, the next 25% and then, the bottom 50% of habitat value) by general cover type. The top 25% may be land considered the most important habitat for species included in this analysis. When looking at this data it is important to realize that a change in land use could affect the quality of adjacent habitat. Therefore, the area around the habitat (a buffer) is also critical to protect. See associated fact sheet or our web site for more information.

Habitat Types and Importance

- Saltmarsh/water
 - 1 - 49%
 - 50 - 74%
 - Top 25% (highest value)
- Grassland/Shrub/Bare Ground
 - 1 - 49%
 - 50 - 74%
 - Top 25% (highest value)
- Freshwater wetlands (excluding forested wetlands)
 - 1 - 49%
 - 50 - 74%
 - Top 25% (highest value)
- Forested (including forested wetlands)
 - 1 - 49%
 - 50 - 74%
 - Top 25% (highest value)

Roads-24K MEDOT

- Interstate
- Primary
- Secondary
- Local
- Hydrology-24K USGS
- Towns-24K USGS

Scale 1:24,000 8.5 x 11 Format

0 0.25 0.5 Miles

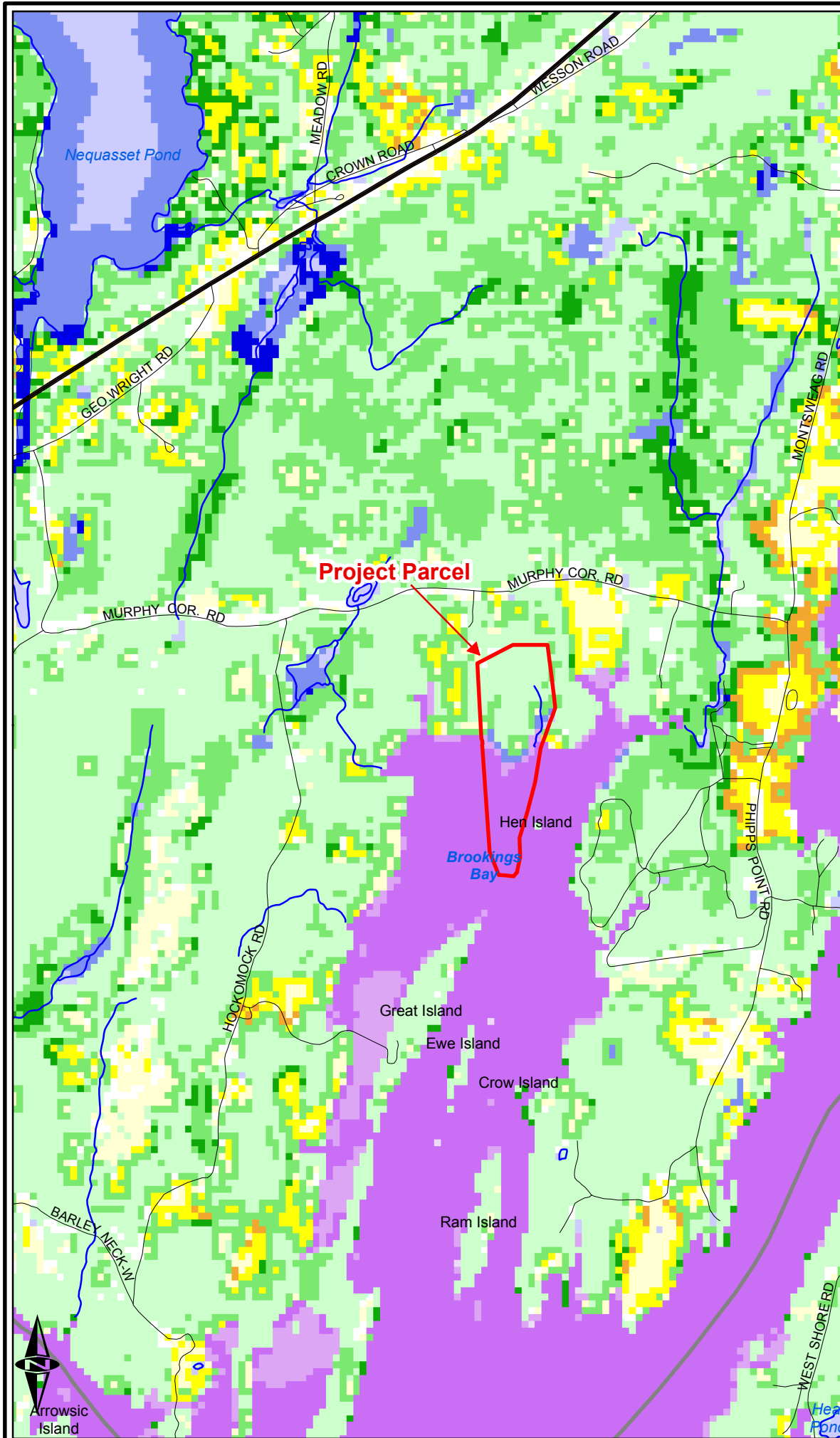
0 0.25 0.5 Kilometers

Map prepared by:



U.S. Fish & Wildlife Service
Gulf of Maine Coastal Program
4R Fundy Rd, Falmouth, ME
<http://gulfofmaine.fws.gov>

BHouston 18 June 2009 Map #361



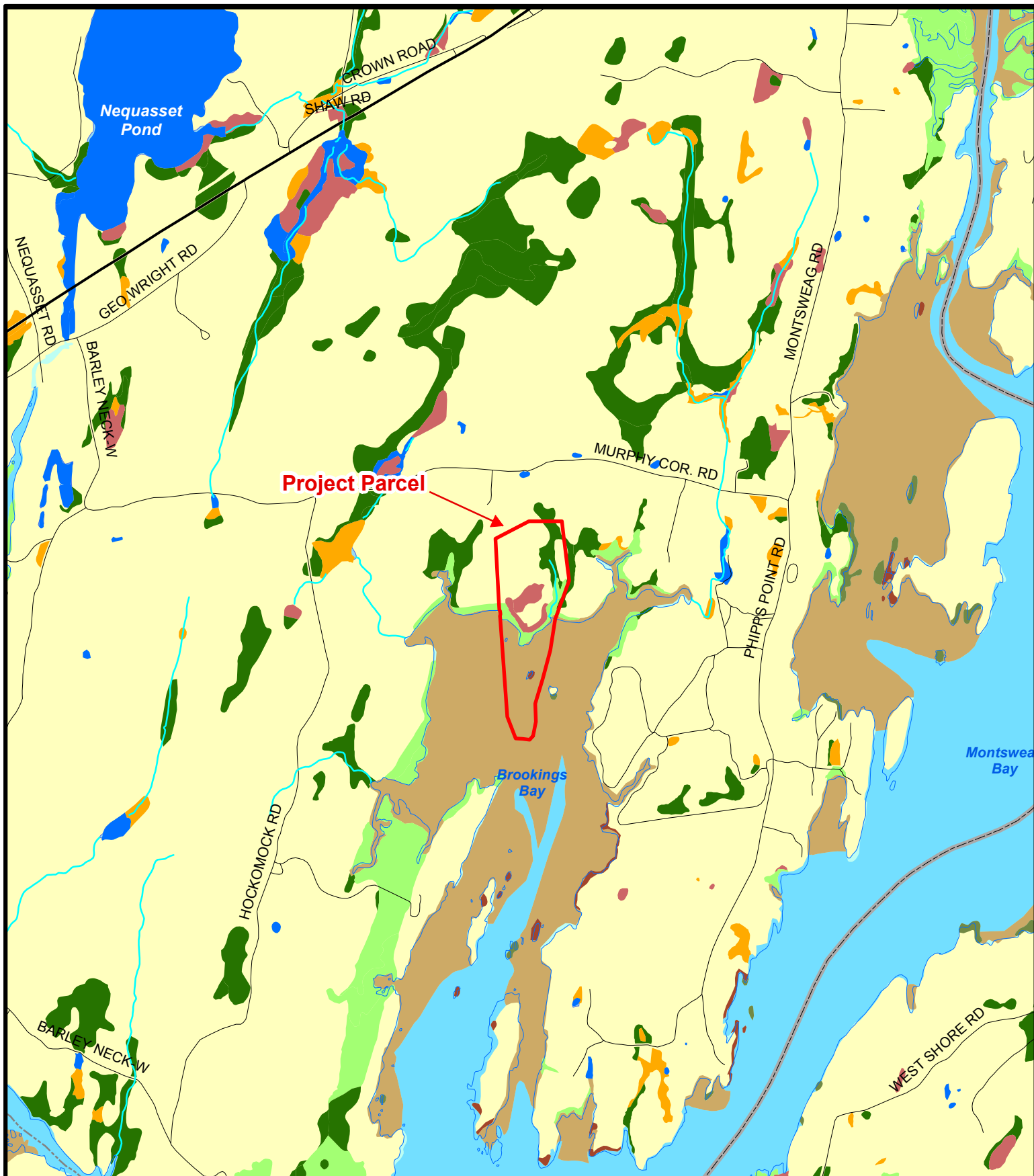


Figure 3. Wetlands, Berry Parcel in Woolwich, Maine, Coastal Wetland Grant, June 2009.

Legend

 Estuarine intertidal aquatic bed	 Estuarine-subtidal	 Marine subtidal
 Estuarine intertidal emergent	 Lake/Pond	 Palustrine emergent
 Estuarine intertidal mudflat	 Marine intertidal aquatic bed	 Palustrine forested
 Estuarine intertidal rocky shore	 Marine intertidal mudflat	 Palustrine Shrub
 Estuarine intertidal shrub	 Marine intertidal rocky shore	 Upland
 Project Parcel (including associated intertidal area)		

Scale 1:24,000 8.5 x 11 Format

0.25 0 0.25 Miles

0.25 0 0.25 Kilometers



Wetlands: National Wetland Inventory, 2007.

Map by USFWS, Gulf of Maine Coastal Program
BHouston 18 June 2009 Map #362

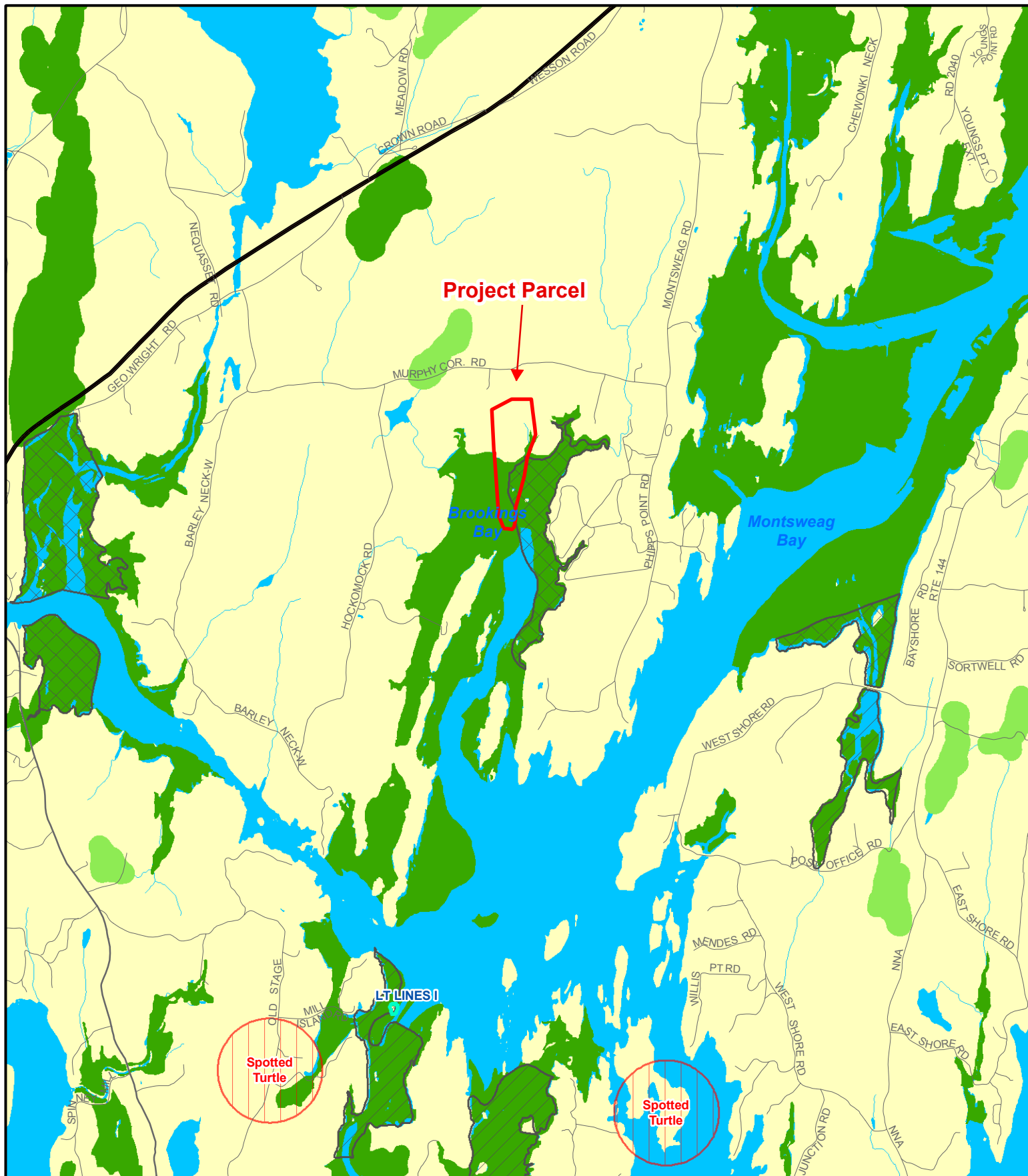


Figure 4a. State of Maine Wildlife Data, Berry Parcel, Woolwich, Maine. Coastal Wetland Grant, June 2009.

Legend

Wading Bird and Waterfowl Habitat

- High Value
- Medium Value

Animal Species of Concern

Shorebird Sites

- feeding and/or roosting
- undetermined use

Nationally Significant Coastal Nesting Islands (USFWS)

Scale 1:40,000 8.5 x 11 Format

0 0.25 0.5 0.75 1 Miles

0 0.5 1 Kilometers



Wildlife data from MDIFW.
Base data from MEGIS.

Map by:
USFWS, Gulf of Maine Coastal Program
BHouston 18 June 2009 Map #363

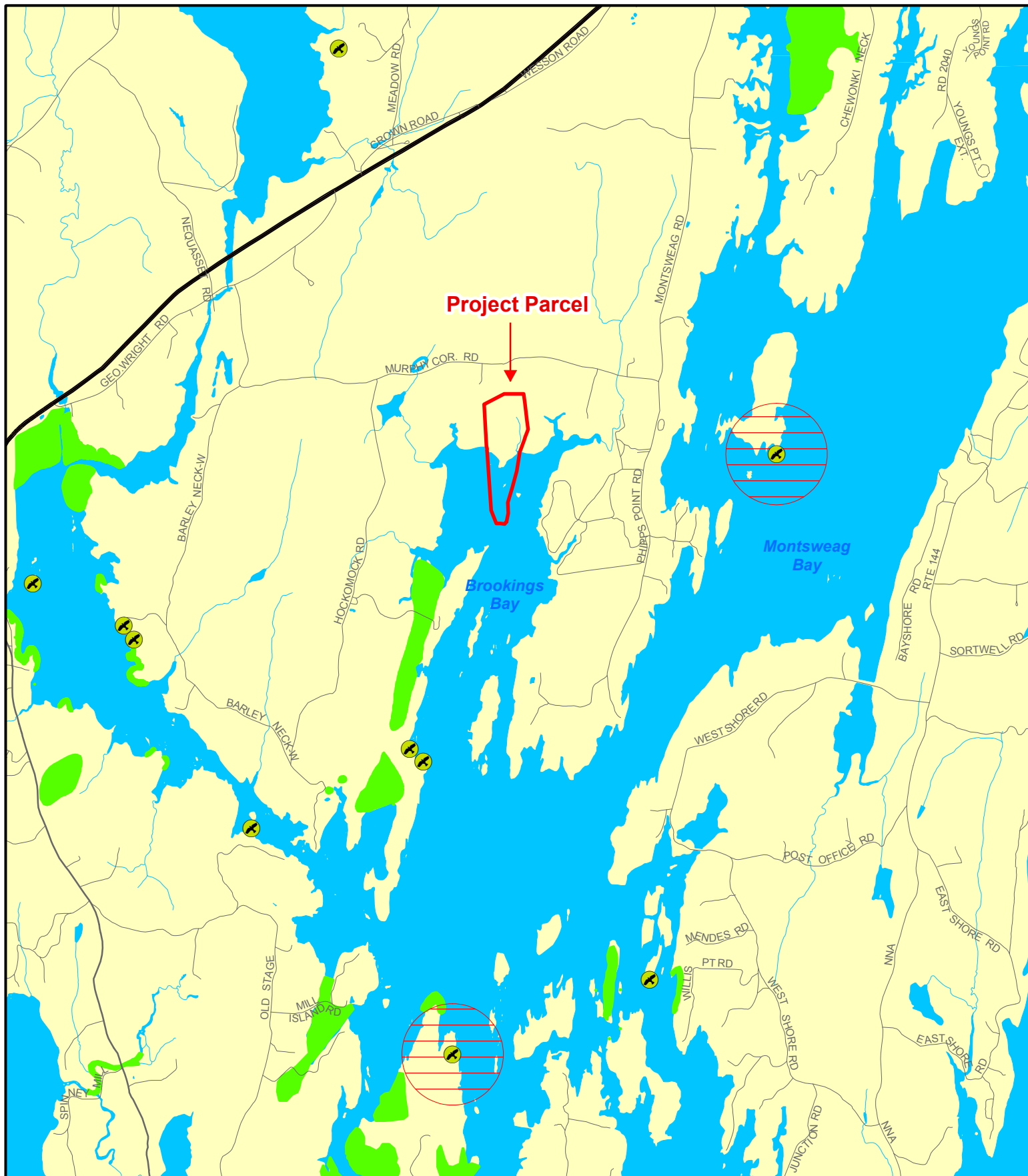


Figure 4b. State of Maine Wildlife & Plant Data, Berry Parcel, Woolwich, Maine. Coastal Wetland Grant, June 2009.

Legend

■ Plant Communities of Concern (MNAP)

⊘ Bald Eagle Essential Habitat (MDIFW)

● Bald Eagle nest locations (MDIFW)

Scale 1:40,000 8.5 x 11 format

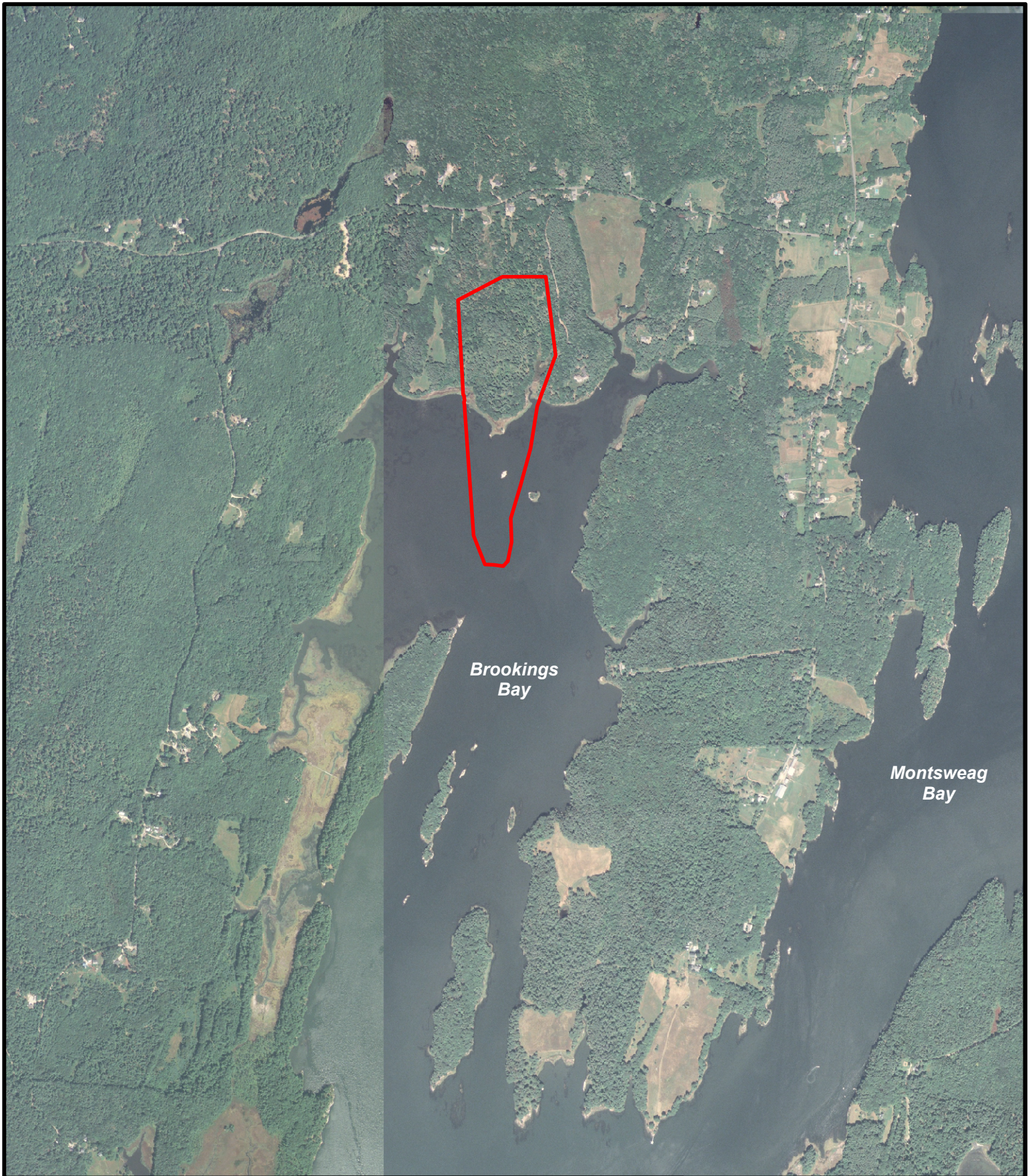
0 0.25 0.5 0.75 1 Miles

0 0.5 1 Kilometers



Base data from MEGIS.

Map by USFWS Gulf of Maine Coastal Program
BHouston 18 June 2009 Map #364



**Figure 5. Aerial Imagery with Project Parcel.
Berry Parcel in Woolwich,
Maine, Coastal Wetland
Grant, June 2009.**

Legend

 Project Parcel

Aerial photography: NAIP 2007.

Scale 1:18,000 8.5 x 11 format

0 0.5 Miles



0 0.5 Kilometers

Map by USFWS Gulf of Maine Coastal Program
BHouston 18 June 2009 Map #365

Figure 6. Conservation Land Ownership and Prospective Conservation Around Brookings Bay.

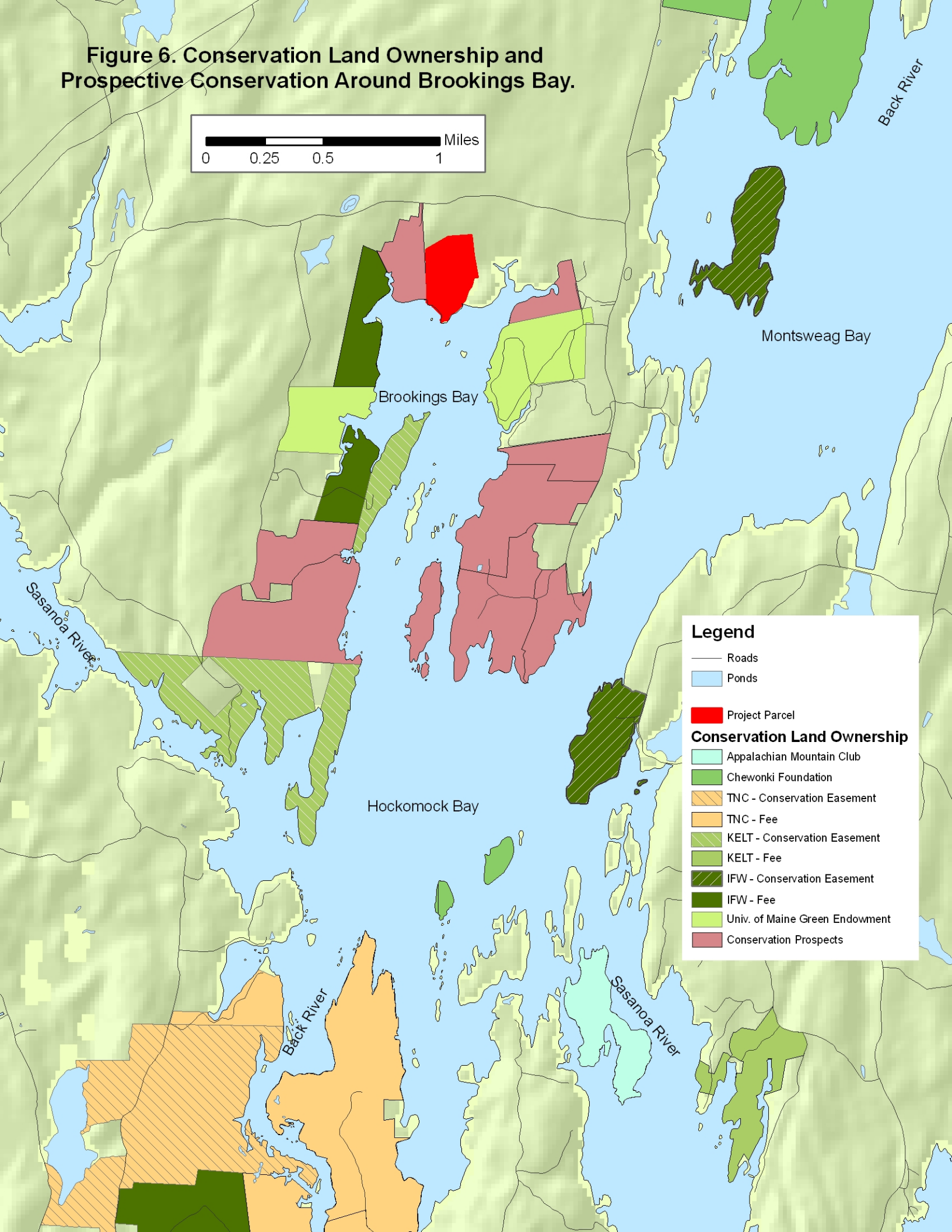


Figure 7. Views of Brookings Bay North Point (Berry)



View from Great Island salt marsh north to subject property, all frontage left of large rock.



Close view of North Point, note: extensive mudflats, salt to the marsh, and shrub/scrub wetland.



Entire frontage of subject property, note extensive mudflats, approximately one hour after low tide.



View of west side of Brookings Bay, frontage includes subject property on right and parcels belonging to Maine IF&W and Univ. of Maine.

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11. Maine Coastal Program Action Plan: 1998-2000. State Planning Office, 1997
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<http://www.briloon.org/pub/doc/2008Contaminant.pdf>

17. Conserving Freshwater and Coastal Resources in a Changing Climate, The Nature Conservancy, 2007
18. Helping Natural Communities Adapt to Climate Change: On-the-ground Strategies in The Nature Conservancy's Eastern Region, October 2007.

Signed letters of commitment from an authorized representative of any non-State agency match provider.

Stewart Fefer, USFWS Gulf of Maine Coastal Program
Steven Taylor, Town of Woolwich Conservation Commission
Will Brune, The Nature Conservancy of Maine
Betsy Ham, Maine Coast Heritage Trust
Jack Witham, Kennebec Estuary Land Trust



United States Department of the Interior
U.S. Fish and Wildlife Service



GULF OF MAINE COASTAL PROGRAM
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Phone: (207) 781-8364 FAX: (207) 781-8369
E-mail: FW5ES_GOMP@fws.gov
<http://gulfofmaine.fws.gov>

June 16, 2009

Marv Moriarty, Regional Director
(Attention: Dan Leahy, Federal Aid)
U.S. Fish and Wildlife Service
300 Westgate Center Drive
Hadley, MA 01035-9589

Dear Marv and Dan:

I am writing to express our enthusiastic support for this National Coastal Wetland Grant proposal to permanently protect 1556 feet of coastal shoreline and 59.3 acres of high value upland, freshwater wetland and intertidal salt marsh and mudflats as part of the Brookings Bay North Point (Berry) wetlands conservation project in the Lower Kennebec Estuary in Woolwich, Maine.

The Kennebec Estuary itself is comprised of Merrymeeting Bay and the lower fifteen miles of the Kennebec River. It consists of high value salt marshes, tidal freshwater marshes, riparian habitat and associated upland buffers. Twenty percent of Maine's tidal marshes are found within the estuary, representing the largest concentration of salt and freshwater tidal marshes in the state. The estuary provides the most important waterfowl concentration area in New England and is one of the premier waterfowl staging grounds on the Atlantic Flyway. The Kennebec Estuary contains over 500 miles of coastline, salt marsh, and river frontage.

In 1992, the Maine Wetlands Protection Coalition was established as an innovative partnership to protect high value habitat in the Kennebec Estuary. This effort has gained national recognition as a successful model that brings the Maine Department of Inland Fisheries and Wildlife (MDIFW), US Fish and Wildlife Service (USFWS) and many non-governmental organizations together as a coordinated approach to prioritize and protect land of significant value in the Kennebec Estuary. As a result, more than 15,000 acres of coastal wetlands and uplands have been protected to date in this project region.

Brookings Bay and Back River are integral parts of the Merrymeeting Bay and Lower Kennebec focus area of the Atlantic Coast Joint Venture and have also been identified as a focus area of the State of Maine's Beginning with Habitat Program. The Brookings Bay area has also been identified as a priority for permanent protection by the State of Maine's Landowner Incentive

Program and have been recently included as a featured place by LandScope America, a collaborative project of Nature Serve and the National Geographic Society.

Brookings Bay expansive mudflats, salt marsh and eelgrass beds is excellent habitat for bald eagles, migratory shorebirds and waterfowl. The Bay also provides important habitat for endangered sturgeon as well as for striped bass and other diadromous fish species. The surrounding uplands provide valuable buffer to these wetland habitats but these uplands are threatened by the fast pace of development occurring in this area of coastal Maine. It is highly likely that upland areas around Brookings Bay, including the North Point Berry parcel, will continue to be developed for residential homes if not permanently protected.

Results from our office's GIS analysis, "Identification of Priority Habitats for Trust Species in the Gulf of Maine Watershed (2003)," indicate that the subject property includes subtidal/intertidal estuarine/marine habitat that are very high value (within the top 25%) based on their value for 47 of 91 USFWS priority trust species included in the analysis. Moreover, the property provides high value habitat for 29 of those 47 species, including:

Shorebirds: American Oystercatcher, Black-bellied Plover, Buff-breasted Sandpiper, Hudsonian Godwit, Killdeer, Least Sandpiper, Purple Sandpiper, Red Knot, Ruddy Turnstone, Sanderling, Semi-palmated Sandpiper, Short-billed Dowitcher, Solitary Sandpiper and Whimbrel

Songbirds/other birds: Marsh Wren, Nelson's Sharp-tailed Sparrow, Saltmarsh Sharp-tailed Sparrow and Sedge Wren

Waterbirds: American Bittern, American Black Duck, Greater Scaup, Lesser Scaup, Little Blue Heron, Osprey, Snowy Egret, Tricolored Heron and Wood Duck

Federally Endangered/Threatened species: Bald Eagle (recently delisted)

Fish and Invertebrates: Horseshoe Crab

In short, this proposal is important to support for the following reasons:

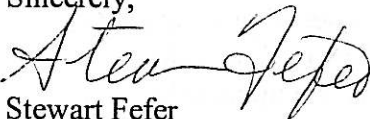
It provides exceptionally high value habitat for coastal fish and wildlife

It is near other key conservation lands in the Lower Kennebec and is part of the larger protection efforts within the ACJV focus area

If the property is not protected, the threat of conversion to residential development is high

This proposal offers an excellent opportunity to protect a valuable coastal property including high value wetland habitats in a focus area involving numerous conservation partner organizations. We appreciate the opportunity the National Coastal Wetland Conservation grants provide in support of high value coastal land conservation efforts in Maine.

Sincerely,



Stewart Fefer
Project Leader